3. (Amended) The operator according to claim 2 wherein the second end of each sleeve is closed, and wherein the bar has a recess therein for receiving the closed second end of each sleeve.

5. (Amended) The operator according to claim 4 further comprising a return between the first and second winding sections, extending substantially between the plate and the bar.

6. (Amended) The operator according to claim 5 wherein the return comprises in an U-shaped member, oriented so that the ends of the legs of the "U" are adjacent the plate, and the bottom of the "U" extends over the bar.

7. (Amended) The operator according to claim 6 wherein the plate has cutouts for receiving the ends of the legs of the "U'.

9. (Amended) The gas valve according to claim 8 wherein the coil comprises first and second winding sections connected in series and separated by a gap.

10. (Amended) The gas valve according to claim 9 further comprising a return between the first and second winding sections, extending substantially between the plate and the bar.

11. (Amended) The gas valve according to claim 10 wherein the return comprises in an U-shaped member, oriented so that the ends of the legs of the "U" are adjacent the plate, and the bottom of the "U" extends over the bar.

12. (Amended) The gas valve according to claim 11 wherein the plate has cutouts for receiving the ends of the legs of the "U".

17. (Amended) A single coil split flux path electromagnetic two operator controller comprising:

a core element made of magnetic flux conducting material and having opposite first and second ends defining a length of the core element there between;

a single coil winding, the winding being wrapped around the core element along a portion of the length of the core and having first and second ends, the winding being configured to magnetize said core element and create an electromagnet when energized by passing an electrical current through the winding, said electromagnet creating a magnetic field and an associated flux path when energized, the core being

part of the flux path and the first and second ends of the core element being respective first and second poles of said electromagnet;

first and second operators made of magnetic flux conducting material, said operators each being movable between independent first and second positions and being biased so that when the electromagnet is not energized the operators are in their respective first positions;

a support member supporting the electromagnet so that the first and second poles of the electromagnet are in a spaced apart relation from the respective first and second operators and within the flux path of the electromagnet along with the first and second poles, the first and second operators being attracted to the respective first and second poles and moving from their respective first positions to their respective second positions when the electromagnet is sufficiently energized;

a base made of magnetic flux conducting materials, the base separating the first and second operators and being part of the flux path when the electromagnet is energized; and

a flux divider made of magnetic flux conducting material, the flux divider separating the winding into the primary and secondary windings, and thereby separating the flux path into respective primary and secondary flux paths, the flux divider extending to a location on the base between first and second operators, the primary flux path generally going from the first pole through the first operator through the base through the flux divider through the core within the primary winding and back to the first pole, the secondary flux path generally going from the core element within the secondary winding through the flux divider through the base through the second operator through the second pole and back to the core within the secondary winding, the primary winding being sized to generate sufficient flux to pull the first operator towards the first pole and into the first operator's second position when the electromagnet is energized, the secondary winding being sized to generate sufficient flux to pull the second operator towards the second pole and into the second operator's second position when the electromagnet is energized.

18. (Amended) The controller of claim 17, wherein:

the single coil winding is wound on a bobbin, the bobbin having first and second ends defining a length of the bobbin there between and a hollow interior bore between the first and second ends, the interior bore being dimensioned to allow the core element to fit inside the interior bore, the winding covering a portion of the length of the bobbin and the core element being within the interior bore of the bobbin with the first and second core ends extending beyond the winding on the bobbin, the winding, bobbin and core element thereby forming the electromagnet when energized.

19. (Amended) The controller of claim 18, wherein:

the bobbin has an integral switch, the switch being selectively adjustable between on and off positions, the switch is electrically connected to the winding and has connection members for electrically connecting the switch to an electric current source to energize the electromagnet, the switch separating the electric current source from the winding and allowing current to flow through the winding when in the on position and preventing current from flowing through the winding when in the off position.

20. (Amended) The controller of claim 18, wherein:

the bobbin has an integral rectifier electrically connected to the winding and separating the winding from a current source, the rectifier having connection elements for electrically connecting to a current source to energize the electromagnet, the rectifier, when connected to an alternating current source, converting the alternating current to a direct current to thereby energize the electromagnet with direct current.

21. (Amended) The controller of claim 18, wherein:

the core element has a cross-sectional shape perpendicular to the core length that is generally circular and the bobbin has a cross sectional shape perpendicular to the bobbin length that is generally circular.

22. (Amended) The controller of claim 21, wherein:

the flux divider is generally U-shaped and is positioned around the generally circular cross-section of the bobbin so that the flux divider encircles approximately 180 degrees of the generally circular cross-section and extends to the base.

23. (Amended) The controller of claim 17, wherein:

The support member is comprised of a pair of legs, the pair of legs being first and second legs, and extending to the respective first and second poles of the

electromagnet, the first leg having a hollow interior dimensioned to allow the first operator to fit inside the first leg and move from the first operator's first position to the first operator's second position while inside the fist leg, and the second leg having a hollow interior dimensioned to allow the second operator to fit inside the second leg and move form the second operator's first position to the second operator's second position while inside the second leg.

24. (Amended) The controller of claim 17, wherein:

The flux divider extends through the base and makes contact with the base when the electromagnet is energized.

26. (Amended) The controller of claim 25, wherein:

a bobbin surrounds a portion of the rod and the coil encloses a portion of the bobbin, the rod and coil being inductively coupled and making an electromagnet when the electrical current is passing through the coil.

27. (Amended) The controller of claim 25, wherein:

a switch is electrically connected to the coil and separates the coil from the current source, the switch being selectively positionable between open and closed positions and having electrical connectors adapted to be connected to the current source, the switch preventing current from flowing through the coil when in the open position and allowing current to flow through the coil when in the closed position.

28. (Amended) The controller of claim 25, wherein:

A rectifier is electrically connected to the coil and separates the coil from the current source, the rectifier having electrical connectors adapted to be connected to the current source and converting an alternating current to direct current when connected to an alternating current source.

29. (Amended) The controller of claim 25, wherein:

the first plunger is connected to a valve and when the first plunger is moved between the two positions, the valve opens and closes.

30. (Amended) The controller of claim 25, wherein:

the second plunger is connected to a second valve and when the second plunger is moved between the two positions, the second valve opens and closes.

31. (Amended) The controller of claim 25, wherein:

the divider has a closed end and an open end and is generally U-shaped and the base has at least one slot, the closed end being positioned around a portion of the rod and the open end extending through at least one slot in the base, the divider being in contact with the base when the electrical current is passing through the coil.

32. (Amended) The controller of claim 25, wherein:

the divider passes through the base and is in contact with the base when the electrical current is passing through the coil.

34. (Amended) The method of claim 33, further comprising the step of:

providing a switch electrically connected to the coil and separating the coil from an electrical current source, the switch being selectively adjustable between on and off positions and having electrical connectors adapted to be connected to the electrical current source, the switch preventing current from flowing through the coil when in the off position and allowing current to flow through the coil when in the on position.

35. (Amended) The method of claim 33, further comprising the step of:

providing a rectifier electrically connected to the coil and separating the coil from an electrical current source, the rectifier having electrical connectors adapted to be connected to the electrical current source and converting alternating current to direct current when connected to an alternating current source.

36. (Amended) The method of claim 33, further comprising the step of:

sizing the first sections of winding to provide sufficient flux to pull the first operator from the biased position to the non-biased position when an electrical current is passed through the coil; and

sizing the second section of winding to provide sufficient flux to pull the second operator from the biased position to the non-biased position when the electrical current is passing through the coil.